



POINT TO POINT WIRE RUNNING LIST			
FROM	WIRE SIZE (AWG)	MAX DISTANCE (FT)	TO
SOLAR PANEL (+)	18	12	OPTIONAL LTB (+)
SOLAR PANEL (-)	18	12	OPTIONAL LTB (-)
OPTIONAL LTB (+)	8	12	MAIN BATTERY (+)
OPTIONAL LTB (-)	8	12	MAIN BATTERY (-)
MAIN BATTERY (+)	12*	15	RANGE LT, CG-493 (+)
MAIN BATTERY (-)	12*	15	RANGE LT, CG-493 (-)
RANGE LT, CG-493 (F)	12		RANGE LT, CG-6P (F)
RANGE LT, CG-493 (L)	12		RANGE LT, CG-6P (L)
RANGE LT, CG-493 (-)	12		RANGE LT, CG-6P (-)
PHOTORESISTOR, 1ST LEAD			RANGE LT, CG-493 (S)
PHOTORESISTOR, 2ND LEAD			RANGE LT, CG-493 (S)

* THE MAX DISTANCE IS 26FT FOR #10 AWG; 39FT FOR #8 AWG.

BILL OF MATERIALS			
ITEM	TYPE	SOURCE OF SUPPLY	QUANTITY
SOLAR PANEL (10W)	G-SEC QPL 401A	ELC	NOTE 3
PHOTORESISTOR	TYPE L	ELC	1
RANGE LT, RL-14	CARLISLE & FINCH	ELC	NOTE 1
12VDC FLASHER	CG-493 / CG-181	ELC	1
12VDC LAMPCHANGER	CG-6P	ELC	1
LAMPS	12VDC, 1.9A	ELC	6
MAIN BATTERY, LEAD ACID 100AH	S2000	DELCO	NOTE 3

NOTES:

- RANGE LANTERN, LAMPS, RHYTHM, AND BEAM WIDTH DETERMINED BY INTENSITIES RECOMMENDED BY THE RANGE DESIGN PROGRAM. YOU MAY USE EITHER RL-14, 250MM OR 300MM LANTERN FOR RANGE LT.
- WIRE SIZES ARE BASED ON MAXIMUM ANTICIPATED LOADS. WIRES MAY BE RESIZED ONLY IF LOAD & CHARGING CIRCUIT VOLTAGE DROPS DO NOT EXCEED 0.35V & 0.75V, RESPECTIVELY.
- BATTERY SIZE & NUMBER OF PANELS DETERMINED BY SOLAR DESIGN PROGRAM OR SOLAR SIZING TABLES IN ATON TECH MANUAL, M165003A.
- STANDARD PANELS COME WITH 12FT LEAD, #18AWG PIGTAIL; IF NO LTB AND PANEL CLOSE TO BATTERY, CONNECT PIGTAIL DIRECTLY TO THE BATTERY.
- ALL WIRE RUNS SHALL BE ENCLOSED IN APPROPRIATELY SIZED RIGID OR LIQUID-TIGHT FLEX CONDUIT AS INDICATED TO FORM A WEATHERTIGHT SYSTEM AND PROTECT ELECTRICAL COMPONENTS FROM THE ELEMENTS.

A	8/03	JTG	ADDED CONDUIT, CHANGE NOTE 2 AND ADDED NOTE 5	KMD
REV.	DATE	APPR.	DESCRIPTION	BY
DESIGNED: STN			U.S. COAST GUARD HEADQUARTERS CIVIL ENGINEERING STANDARD AID TO NAVIGATION SOLAR NIGHT RANGE (RANGE CATEGORY S-N)	
DRAWN: STN				
TRACED:				
CHECKED: KA/JTG				
REVIEWED BY:				
H.R. CLEVELAND				
G-SEC-2A				
REVIEWED BY:				
L.E. JAEGER				
G-SEC-2				
REVIEWED BY:			APPROVED:	DATE
			CAPT J.A. RAUCH	5/19/97
			CHIEF, OFFICE OF CIVIL ENGINEERING	
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. TOLERANCES: DIM. ANG.			DRAWING NUMBER	REV.
			140501	A
			SCALE: NONE	SHEET 1 OF 1